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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,783	04/28/2006	Makoto Muramatsu	6340-000071/US/NP	6104
27572	7590	05/29/2008		
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EXAMINER				
CHARLES, MARCUS				
ART UNIT		PAPER NUMBER		
3682				
MAIL DATE		DELIVERY MODE		
05/29/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/577,783

**Applicant(s)**

MURAMATSU ET AL.

**Examiner**

Marcus Charles

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-5 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 28 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SI/88)  
Paper No(s)/Mail Date 4-28-2006 & 4-12-2007  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This the first action relating to serial application number 10/577,783 filed 04-29-2006.

Claims 1-5 are currently pending.

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, sealing device having a sealing lip in combination with "side lips and radial lips" of claim 3, and in combination with "main lips and sub lips" of claim 4, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. The disclosure is objected to because of the following informalities: the specification does not describe a rolling bearing having sealing lips as in claim 1 and side lips and radial lips of claim 3. In addition, there is not description of a sealing device with a sealing lip of claim 1 and a main lip and sub lip of claim 4. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 13, it is not clear as to what the phrase "normal thereto" is referring too. What is normal to what? In claim 2, the intended scope of the claim is unclear because it is it is not clear as to how the leading lips forms the sealing ring sliding contact the slinger.

In claim 3, it is not clear as to the difference between the side lips, a radial lip and the sealing lips of claim 1. It appears that two different sealing devices are being claimed in the claim.

In claim 4, it is not clear as to the difference between the main lips, a sub lip and the sealing lips of claim 1. It appears that two different sealing devices are being claimed in the claim.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by JP (2001-289257). JP (2001-289257) discloses a bearing comprising an outer member (2) with at least one outer raceway surface (2a); an inner member (1) formed with at least one inner raceway surface (1a) on its outer circumferential surface, the inner raceway surface is arranged opposite the inner race way surface and rolling elements (3) freely rollably contained between the inner and outer raceway; sealing devices (5) arranged in the annular space formed between the outer and inner members, each sealing devices has a sealing lip (see 16a, 16b) of an elastic member such the roughness of the surface of a sliding surface (11a) of he member of the rotational side (1) in contact with a seal lip has a maximum height  $R_{max}$  3.0  $\mu m$  or less, the value 3.0  $\mu m$  or less is equivalent to the claimed invention when the value is at least 2.0  $\mu m$ ), and a run-out sliding surface (1b) normal to the sliding surface is limited to a roughness value of  $R_{max}$  3.0  $\mu m$  or less which falls within the of the claimed invention of 30.0  $\mu m$ .

In claim 2, the sealing device includes a ring (12) mounted on the stationary (see 2) and a slinger (11b) mounted on the rotational side, the sealing lip forming the sealing ring slidably contacting the slinger.

In claim 3 as understood, not the sealing ring (11b), the radial lip (16a), and the side lips (16c) the sealing lips (16b).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4 rejected under 35 U.S.C. 103(a) as being unpatentable over JP (2001-289257) in view of Uchida et al. (5,037,213). JP (2001-289257) discloses a main lip (16b) and a sub lip (16c) but fails to disclose that the main lip is in sliding contact with a sealing groove formed on a member of a rotational side and having a substantially U-shape cross section, and the sub lip is in sliding contact with a ridge of the groove. Uchida et al. disclose sealing rolling bearing (see figs. 2/4) comprising a main lip (60/90) slidably contacting a U-shaped groove (30/76), and a sub lip (58/88) in sliding contact with a ridge (28/94) of the groove via a small interference in order to allow subsequently deformation of one lip due to the wearing of another lip and to improve the sealing ability of the plates. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of JP (2001-289257) to include the

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main lip and sub lip in view of Uchida et al. to improve the sealing ability as mention above.

10. Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over JP (2001-289257). JP (2001-289257) fails to disclose the roughness surface value 1.2  $\mu\text{m}$  or less and run-out sliding surface has a roughness value of 10  $\mu\text{m}$  or less. JP (2001-289257) mentions the value of roughness value of 3  $\mu\text{m}$ . or less and the roughness of run-out sliding surface is 3.0  $\mu\text{m}$  or less. These values may incorporate the claim values as recited. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of JP (2001-289257) so as to include the values as claimed, since it has been held that where the general conditions of a claim is disclosed in the prior art, discovering the optimum ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

#### ***Citation***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the prior art cited in attached PTO Form 892.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marcus Charles/

*Marcus Charles*

Primary Examiner, Art Unit 3682